

US009410006B2

# (12) United States Patent

Haraguchi et al.

## (54) FLUORINE-CONTAINING HIGHLY BRANCHED POLYMER AND RESIN COMPOSITION CONTAINING THE SAME

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Subject to any disclaimer, the term of this patent is extended or adjusted under 35

U.S.C. 154(b) by 898 days.

(21) Appl. No.: 13/322,722

(22) PCT Filed: May 31, 2010

(86) PCT No.: **PCT/JP2010/059192** 

§ 371 (c)(1),

Notice:

(2), (4) Date: Feb. 2, 2012

(87) PCT Pub. No.: WO2010/137724

PCT Pub. Date: Dec. 2, 2010

(65) **Prior Publication Data** 

US 2012/0135206 A1 May 31, 2012

## (30) Foreign Application Priority Data

May 29, 2009	(JP)	2009-131608
Feb. 16, 2010	(JP)	2010-031879
Mar. 10, 2010	(JP)	2010-053392
Apr 30 2010	(IP)	2010-105541

(51) **Int. Cl.** 

**B32B 3/00** (2006.01) **C08F 8/18** (2006.01)

(Continued)

(52) U.S. Cl.

(Continued)

# (10) **Patent No.:**

US 9,410,006 B2

(45) **Date of Patent:** 

Aug. 9, 2016

#### 58) Field of Classification Search

#### (56) References Cited

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# (57) ABSTRACT

It is an object to provide a compound that can provide a molded article and a coating film excellent not only in solubility in an organic solvent, but also in miscibility with/dispersibility in a matrix resin, causing no aggregation in a matrix resin, excellent in surface modification property, and having high transparency. A fluorine-containing highly branched polymer obtained by polymerizing a monomer A having two or more radical polymerizable double bonds in the molecule thereof with a monomer B having a fluoroalkyl group and at least one radical polymerizable double bond in the molecule thereof in the presence of a polymerization initiator C in a content of 5% by mol or more and 200% by mol or less, based on the total molar amount of the monomer A and the monomer B; and a resin composition comprising the polymer.

### 14 Claims, 38 Drawing Sheets

